4030 Retro Compressor

Original Vintage Style Designs

User Manual

McDOWELL SIGNAL PROCESSING, LLC

McDSP 4030 Retro Compressor Plug-In Manual

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Special Thanks to:

- Rob Barrett Jr., our #1 customer
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Getting Started with the 4030 Retro Compressor

Each McDSP plug-in is delivered inside an installer application, and uses the Interlok copy protection software to authorize each plug-in. This section describes how to install and authorize a McDSP plug-in. General system requirements are also described.

System Requirements

McDSP HD, Native, and LE plug-ins are compatible with Pro Tools™ HD, HD Accel TDM systems, as well as Pro Tools™ LE and Pro Tools™ M-Powered host based systems. McDSP plug-ins support Mac OS 10.4.x (Tiger), 10.5.x (Leopard), Windows XP and Vista and require Pro Tools 7.x, 8.x or greater. McDSP plug-ins require an iLok USB Smart Key.

Configurations

McDSP plug-ins are available in TDM, RTAS, and AudioSuite configurations. See individual products for specific available configuration sets.

Applications

Pro Tools™ 7.x, 8.x or higher is required for TDM, LE, and M-Powered systems. Additionally, a third party software application that supports the Digidesign TDM, RTAS, or AudioSuite plug-in standard may be supported. See http://www.digidesign.com/developers/plugin_info/ for more information.

McDSP plug-ins are compatible with the entire Pro Tools™ 7 and 8 product line.

Hardware

McDSP plug-ins support any Digidesign or approved third party hardware supported in Pro Tools™ 7.x and 8.x. This includes HD, HD Accel, 003, and Mbox host based systems. All McDSP HD plug-ins, except Synthesizer One, also support the Digidesign VENUE D-SHOW systems. See http://www.digidesign.com/compato/ for more specific information.

The McDSP Mac versions are compatible with both Intel and PowerPC based computers. The McDSP Windows versions require an Intel Pentium 4 or greater processor.*

** McDSP Windows test machines are chosen to follow the Digidesign recommended systems guide, which currently is the Dell Precision™ Workstation 670 with 2.79 GHz Xeon processor. All products are guaranteed to run on that system. Older Intel processors (i.e. Pentium III and predecessors) and AMD processors are not officially supported, although some users have had limited success with newer AMD processors (i.e. Dual Opteron 1.79 GHZ, Athlon 64 2.20 GHz, and Athlon 64 XP 3700). None of the McDSP Windows product line will work with Pro Tools™ 5.x. Also note the McDSP Windows product line does not support MIX, although RTAS versions will work if they exist and the rest of your system (i.e. Pro Tools™ version and processor) is compatible.*

Please visit mcdsp.com for the latest information about compatibility.

Installing the 4030 Retro Compressor Plug-In

Installation on Mac OS X

The 4030 Retro Compressor plug-in Package includes this manual, ReadMe and Release Notes, a folder of presets for the 4030 Retro Compressor plug-in, and the 4030 Retro Compressor plug-in. Two copies of the 4030 Retro Compressor Licensing Agreement are included - one in this pdf manual and a second as a separate text file. The 4030 Retro Compressor plug-in manual requires that Adobe Acrobat reader (or similar .pdf reader) is installed.

Both online and boxed version will come with a 4030 Retro Compressor installer that will automatically install the 4030 Retro Compressor plug-in and its presets on your system. The authorization of the 4030 Retro Compressor plug-in is still required after running the installer, and those steps are detailed in the following sections.

Installing the 4030 Retro Compressor plug-in and presets with the Installer:

The online version of the package has been prepared for Internet delivery, and is transmitted as a compressed file in zip format (.zip). In Mac OS X 10.4.x or 10.5.x, simply double click the *.zip file to unpack the installer. The boxed plug-in package purchased at your local dealer will be on CDROM. As with the online version, these 'physical' versions of the 4030 Retro Compressor plug-in package should be copied into a local folder on your system.

- Insert the McDSP 'HD Disk,' 'Native Disk,' or 'LE Disk' CDROM onto an available CDROM drive.
- Navigate to the 4030 Retro Compressor plug-in folder on the CDROM - the installer application is contained therein.
- Run the 4030 Retro Compressor plug-in Installer application to install (copy) the 4030 Retro Compressor plug-in, presets, and documentation to a local folder on your system. The plug-in will be placed in the 'Plug-Ins' folder, and the presets will be placed in the 'Plug-Ins Settings' folder.
- If a previous version of the 4030 Retro Compressor plug-in (or other HD, Native, or LE version) was already in the plug-ins folder, it will automatically

be updated (or replaced) by the installer.

Re-installing the 4030 Retro Compressor plug-in presets manually:

In you wish to restore the factory default presets, it may be useful to know how to manually re-install only the presets.

- Go to the 'Plug-in Settings' folder:
- Root->Library->Application Support->Digidesign->Plug-in Settings
- If Pro Tools™ has not already done so for you, create a folder called '4030 Retro Compressor'.
- Place a copy of the folder from the 4030 Retro Compressor plug-in package called 'Presets' into the '4030 Retro Compressor' folder. The presets are now viewable (after restarting Pro Tools™) from the settings popup menu from the 4030 Retro Compressor plug-in.

Note it may be necessary to re-start Pro Tools™ in order for the newly added 'Presets' folder to be viewable from the Settings popup inside the 4030 Retro Compressor plug-in window toolbar.

Installation on Windows XP and Vista

The 4030 Retro Compressor plug-in Package includes this manual, ReadMe and Release Notes, a folder of presets for the 4030 Retro Compressor plug-in, and the 4030 Retro Compressor plug-in. Two copies of the 4030 Retro Compressor Licensing Agreement are included - one in this pdf manual and a second as a separate text file. The 4030 Retro Compressor manual requires that Adobe Acrobat reader (or similar .pdf reader) is installed.

Both online and boxed version will come with a 4030 Retro Compressor installer that will automatically install the 4030 Retro Compressor plug-in and its presets on your system. The authorization of the 4030 Retro Compressor plug-in is still required after running the installer, and those steps are detailed in the following sections.

Installing the 4030 Retro Compressor plug-in and presets with the Installer:

The 4030 Retro Compressor plug-in package purchased at your local dealer will be on CDROM and contain a Windows self extracting executable (.exe) similar to the online 4030 Retro Compressor plug-in package prepared for Internet delivery. Both the boxed and online versions the 4030 Retro Compressor plug-in executable file will automatically install the plug-in and its presets on your system. Double click the file to launch the installer which will install the 4030 Retro Compressor plug-in, presets, and documentation. At any time after installation, you may access the documentation from the Windows 'Start Menu' under the 'McDSP' group.

Authorization of the 4030 Retro Compressor plug-in is still required after running the installer, and those steps are detailed in the following sections. Note that after installing new versions of the PACE iLok drivers with the 4030 Retro Compressor plug-in installer, you will be prompted by the 4030 Retro Compressor plug-in installer to reboot your system. If you are not prompted by the installer, there is no need to reboot.

- Insert the McDSP 'HD Disk,' 'Native Disk,' or 'LE Disk' CDROM onto an available CDROM drive.
- Navigate to the 4030 Retro Compressor plug-in folder on the CDROM - the installer application is contained therein.
- Run the 4030 Retro Compressor plug-in Installer application to install the 4030 Retro Compressor plug-in, presets, and documentation to a local folder on your system. The plug-in will be placed in the 'Plug-Ins' folder, and the presets will be placed in the 'Plug-Ins Settings' folder.

- If a previous version of the 4030 Retro Compressor plug-in (or other HD, Native, or LE version) was already in the plug-ins folder, it will automatically be updated (or replaced) by the installer.

Re-installing the 4030 Retro Compressor plug-in presets manually:

In you wish to restore the factory default presets, it may be useful to know how to manually re-install only the presets.

- Go to the Plug-In Settings folder:
- C:\Program Files\Common Files\Digidesign\DAE\Plug-In Settings\
- If Pro Tools™ has not already done so for you, create a folder called '4030 Retro Compressor'.
- Place a copy of the folder from the 4030 Retro Compressor plug-in package called 'Presets' into the '4030 Retro Compressor' folder. The presets are now viewable (after restarting Pro Tools™) from the settings popup menu from the 4030 Retro Compressor plug-in.

Note it may be necessary to re-start Pro Tools™ in order for the newly added 'Presets' folder to be viewable from the Settings popup inside the 4030 Retro Compressor plug-in window toolbar.

Installation on VENUE D-SHOW systems

The 4030 Retro Compressor plug-in Package for VENUE D-SHOW systems includes presets for the 4030 Retro Compressor plug-in and the 4030 Retro Compressor plug-in. The 4030 Retro Compressor Licensing Agreement is displayed when installing the product on D-SHOW. The pdf manual can be obtained by running the Mac OS X or Windows XP/Vista version of the 4030 Retro Compressor Pro Tools plug-in installer on any available computer.

Both online and boxed versions will come with a VENUE compatible installer that will automatically install the 4030 Retro Compressor plug-in and its presets on your system. The authorization of the 4030 Retro Compressor plug-in is still required after running the installer, and those steps are detailed in the following sections.

Note that all McDSP HD plug-ins, except Synthesizer One support the Digidesign VENUE D-SHOW system.

Installing the 4030 Retro Compressor plug-in and presets on VENUE with the 'HD Disk':

The boxed 4030 Retro Compressor plug-in package purchased at your local dealer will contain a CDROM titled 'HD Disk' that is specially formatted to work with your VENUE console. The VENUE installers are also available online as a compressed zip file download, however you will have to take additional steps to create your own VENUE installer CD-R, see additional instructions below before proceeding with these instructions. Both the boxed and online versions of the 4030 Retro Compressor installer are the same and will install both the plug-in and its presets on your system.

Note that after installing new versions of the PACE iLok drivers with the 4030 Retro Compressor plug-in installer, you will need to reboot your system. You will not be prompted to reboot, and if you don't you may see an error message saying "TPkd driver required, and a reboot. Please reboot or reinstall the software.' If you see this message, simply reboot the console and try again.

- Insert the McDSP 'HD Disk' CDROM onto the CD drive. Note that neither the McDSP 'Native Disk' nor the 'LE Disk' contains VENUE compatible installers.

- Ensure your system is in 'CONFIG' mode, you cannot install plug-ins in 'SHOW' mode.
- Navigate to the 'OPTIONS' page and then select the 'PLUG-INS' tab.
- You should now see the 4030 Retro Compressor plug-in available on the left hand side.
- Select the 4030 Retro Compressor plug-in and select 'INSTALL.'
- If a previous version of the 4030 Retro Compressor plug-in was already installed, it will be updated by the installer.

Important note *for FilterBank HD and CompressorBank HD on VENUE D-SHOW consoles: The first time you instantiate either of these plug-ins, a dialog box will appear asking you to choose a user interface preference. Choose the Knobs interfaces, as some of the Slider interfaces are too large for the VENUE display.*

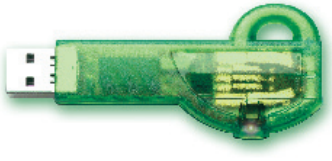
Creating a VENUE D-SHOW Installer CD-R from the online zip file:

If you do not have a boxed copy of 4030 Retro Compressor with the included 'HD Disk' CDROM, you can still obtain a copy of the VENUE compatible installers from the www.mcdsp.com website. Once you have located and downloaded the latest VENUE compatible installers from the McDSP website, you will have to take several additional steps to create a VENUE compatible Installer CD-R. For your convenience, all VENUE compatible products are located in the same downloadable zip file, so you will only have to create one CD-R to install all compatible McDSP products.

- Unzip the downloaded file and locate the folder named "TDM Plug-Ins" inside the unpacked folder.
- Using any CD-R burning application, burn this folder and its contents to an ISO format CD-R. It is recommended that you use a brand new CD-R for this, and do not rewrite an older CD-R.
- Once you have burned this folder to a CD-R, you should see it at the root level of the disk (i.e. "D:\TDM Plug-Ins"). Important: If the "TDM Plug-Ins" folder is not located at the root level of the CD-R or has been renamed, the VENUE console may not properly recognize the installer disk.
- At this point, you can follow the 'HD Disk' installation instructions above to complete the installation.

Authorizing your McDSP Plug-Ins

Authorizing with a pre-programmed iLok Smart Key



McDSP bundles such as the Emerald Pack come with a pre-programmed iLok Smart Key. Simply insert the iLok into any available USB port on your computer. The iLok's indicator light will illuminate when the iLok has a proper connection. The Plug-Ins included in the bundle require no further authorization steps. As with any iLok on your system it is recommended that your iLok be registered and synchronized with iLok.com

Authorizing with an iLok License Card

All McDSP Plug-Ins require that a valid authorization is present on your iLok USB Smart Key. McDSP Plug-ins that are purchased individually provide this authorization on a plastic License Card (about the size of a credit card), with a small punch-out iLok License Chip. After being separated from the License Card, this iLok License Chip is to be inserted into the 'key slot' of the iLok USB Smart Key in order to transfer the authorization from the License Card to the iLok USB Smart Key. Note that each License Card holds ONE Plug-In authorization. The following instructions detail this process

Important Note: The Authorization Wizard will prompt the user to register their iLok USB Smart Key at iLok.com. iLok.com is a service offered by PACE Anti-Piracy, Inc. and this step is recommended but NOT REQUIRED by McDSP to complete the authorization of the Plug-In. If you choose to register your iLok USB Smart Key at iLok.com, care must be taken to record your ilok.com account information (i.e. write down your User ID and Password in a safe place). If your iLok.com account information is lost, the iLok cannot be registered to another account and unfortunately there is nothing McDSP can do to help you. See iLok.com for more details about the benefits of using PACE's iLok.com service.

Note: Images in this section are for illustration only, the actual product and screens will be the name of the product you are authorizing.

Authorizing a McDSP Plug-In from a License Card with the Authorization Wizard:

The Authorization Wizard is used to install an authorization from a License Card to the iLok USB Smart Key. To use the Authorization Wizard for the Plug-In you purchase, perform the following steps:

- Insert your iLok USB Smart Key into an available USB port.
- On a Mac :Locate and launch the 'Authorizer' application found in the 'Authorize' folder in the Plug-In package for the McDSP Plug-In you purchased on the CD-ROM.
- On Windows XP or Vista, just launch Pro Tools™ to authorize the individual McDSP Plug-In you purchased.

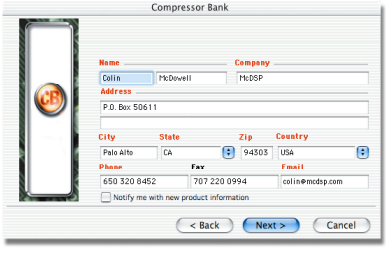
Note: When authorizing the Plug-In on Windows XP or Vista with a new iLok USB Smart Key, you must insert the iLok USB Smart Key and complete the Windows 'Found New Hardware Wizard' before attempting to authorize the Plug-In.

- Select the 'Authorize' button to be guided through the Authorization Wizard.

Compressor Bank
This Plug-In must be authorized with an iLok. An iLok License card is included in the Plug-In package. The iLok USB dongle may be purchased separately if one was not supplied with your system.
To authorize, select the "Authorize" button to be guided through the process. This version of software does not have a demonstration period.
Authorize
Quit

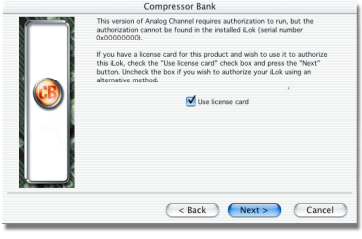
Note: Selecting the 'Quit' button at any time will not authorize the Plug-In or allow it to be used for a trial period. If 'Quit' is selected, the Plug-In will not be available in the Pro Tools™ insert menu.

- McDSP Plug-Ins require that the user personalize their copy of the Plug-In. A dialog is displayed soliciting this information.



Note that the product registration card enclosed with the Plug-In MUST ALSO be filled out as well and returned to McDSP via mail (or fax to 707-220-0994). This additional mail-in registration will entitle the user to future upgrades and advance information from McDSP.

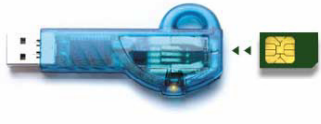
- Once the Plug-In is personalized, click the 'Next' button to continue.
- Check the 'Use License Card' box and press the 'Next' button (figure 2.3).


Compressor Bank
This version of Analog Channel requires authorization to run, but the authorization cannot be found in the installed iLok (serial number 0x00000000).
If you have a license card for this product and wish to use it to authorize this iLok, check the "Use license card" check box and press the "Next" button. Uncheck the box if you wish to authorize your iLok using an alternative method.
Use license card
< Back
Next >
Cancel

Note: Although the Authorization Wizard may appear to allow authorization by challenge/ response, that method is currently NOT SUPPORTED McDSP Plug-Ins.

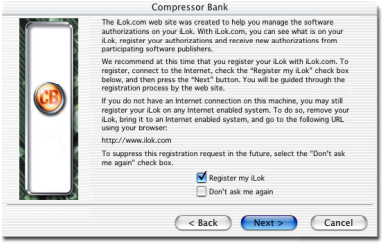
- Separate the small punch-out iLok License Chip (the removable metal and plastic tab) from the License Card by pushing the cutout up and out with your thumb. Do not force your finger downward.

- The iLok License Chip may now be inserted into the 'key slot' of the iLok USB Smart Key (figure 2.6). If the iLok USB Smart Key does not appear to be present on the system, ensure the iLok USB Smart Key is connected to a valid USB port and that the green LED is lit inside the iLok USB Smart Key. To insert the License Chip into the iLok USB Smart Key, orient the iLok USB Smart Key's USB end to the left, and the loop end to the upper right. Insert the metal chip end of the iLok License Chip (the License Chip tab should have the metal chip side facing up towards you, not down). You should be able to visually verify that the License Chip makes contact with the iLok USB Smart Key metal card reader.



- The green LED in the iLok USB Smart Key will light when it is ready to receive and transmit data.
- Upon inserting the iLok License Chip, a message will be displayed indicating the authorization was installed successfully. Click 'Ok' in the message dialog.

Authorization Successfully Installed
Authorization to run Compressor Bank has been successfully installed from your license card to your iLok (serial number 0x00000000).
OK


Compressor Bank
The iLok.com web site was created to help you manage the software authorizations on your iLok. With iLok.com, you can see what is on your iLok, register your authorizations and receive new authorizations from participating software publishers.
We recommend at this time that you register your iLok with iLok.com. To register, connect to the Internet, check the "Register my iLok" check box below, and then press the "Next" button. You will be guided through the registration process by the web site.
If you do not have an Internet connection on this machine, you may still register your iLok on any Internet enabled system. To do so, remove your iLok, bring it to an Internet enabled system, and go to the following URL using your browser:
http://www.ilok.com
To suppress this registration request in the future, select the "Don't ask me again" check box.
Register my iLok
Don't ask me again
< Back
Next >
Cancel

- Once the authorization is installed on the iLok USB Smart Key, a dialog is displayed prompting the user to register their iLok USB Smart Key at the www.ilok.com website. The iLok.com website was created to allow users to manage the software authorizations on their iLok USB Smart Key. THIS STEP IS NOT REQUIRED TO COMPLETE THE AUTHORIZATION OF MCDSP SOFTWARE. The registration of the iLok USB Smart Key to an iLok.com account can be bypassed by clearing the checkbox. The user may also choose to not be asked to register again. While iLok.com is a great resource for the iLok USB Smart Key, your iLok USB Smart Key may only be linked to one iLok.com account. That is, an individual iLok USB Smart Key can only be registered to one account at a time--but a single account can have multiple iLok USB Smart Keys. If the iLok.com account information is lost, the iLok USB Smart Key cannot be registered to another account. However, an iLok USB Smart Key may be transferred between accounts if all the authorizations have been transferred off the iLok USB Smart Key. Register the iLok USB Smart Key to an iLok.com account only when you are ready to retain all the needed iLok.com account information (User ID and Password).
- A 'Finished' dialog is displayed showing what authorization method was used.
- Click 'Finish' to exit the Authorization Wizard.

Authorizing with iLok.com

Required for demo, upgrade, and replacement authorizations only

iLok.com can be accessed from any Macintosh or PC with an Internet connection. You can do this at home, a friend's, or at the office as long as there is an internet connection to access iLok.com--note that you don't have to use your ProTools system computer! You simply use this computer to connect to iLok.com and transfer authorizations to your iLok Smart Key. The iLok Smart Key can then be moved to your ProTools system to complete authorization of your Plug-In.

You will need:

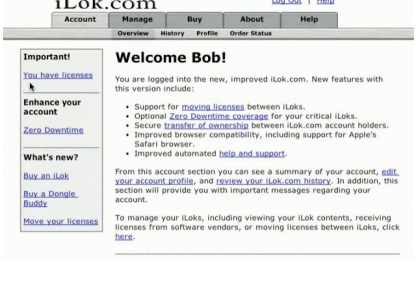
- A computer with an Internet connection. Either a Macintosh running OS 9.2 to OS 10.3 or a PC running Windows 98, ME, 2000, XP, or Vista
- An iLok USB Smart Key
- A valid iLok.com account. Visit www.iLok.com and set up a free account, if you have not already done so.

1) Download and install the required client software from iLok.com.

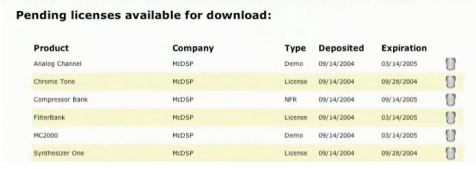
2) Download the desired McDSP Plug-In Installer from:
http://www.mcdsp.com/support/updating.html

3) To receive an upgrade or replacement authorization, send email your iLok.com account information to: support@mcdsp.com
To receive a demo authorization, email your iLok.com account information to: authorize@mcdsp.com

Insert your iLok Smart Key into an available USB port and ensure that the indicator light is lit. Once your demo, upgrade, or replacement authorization is available for transfer, your iLok.com account will display the notice saying "You have licenses" on the upper left. Begin by selecting that link.


iLok.com v2.0
Log Out | Help
Account
Manage
Buy
About
Help
Overview
History
Profile
Order Status
Important!
You have licenses
Enhance your account
Zero Downtime
What's new?
Buy an iLok
Buy a Dongle Buddy
Move your licenses
Welcome Bob!
You are logged into the new, improved iLok.com. New features with this version include:
Support for moving licenses between iLoks.
Optional Zero Downtime coverage for your critical iLoks.
Secure transfer of ownership between iLok.com account holders.
Improved browser compatibility, including support for Apple's Safari browser.
Improved automated help and support.
From this account section you can see a summary of your account, edit your account profile, and review your iLok.com history. In addition, this section will provide you with important messages regarding your account.
To manage your iLoks, including viewing your iLok contents, receiving licenses from software vendors, or moving licenses between iLoks, click here.

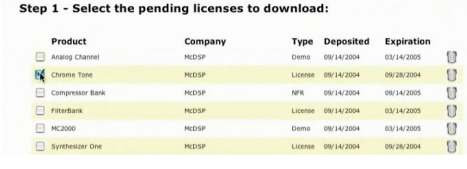
The next page will display the pending licenses available for download. This page will also display the name of the Plug-In, its manufacturer, the type of authorization (demo, Not For Resale, or License), the date the authorization was deposited, and the date when the authorization will no longer be available for download from the server.



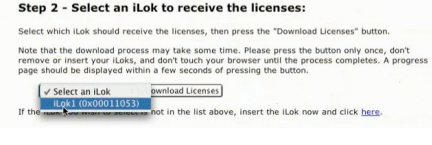
Before any transfer of authorizations can take place, you must synchonize your iLok Smart Key with iLok.com. This may take a moment to process depending on your internet connection.

Insert your iLoks and synchronize:
Before downloading licenses, you must insert one or more iLoks as needed and press the "Synchronize" button. Once your iLoks are synchronized with your account, you will be able to select the licenses to download and the target iLok to receive the licenses.
Note that the synchronization process may take some time. Please press the button only once, don't remove or insert your iLoks, and don't touch your browser until the process completes. A progress page should be displayed within a few seconds of pressing the button.
Synchronize

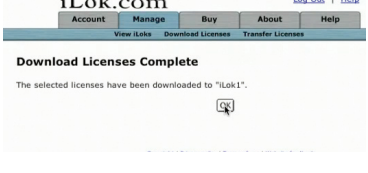
Once you have synchronized your iLok, you can select the authorization(s) you wish to transfer to your iLok.



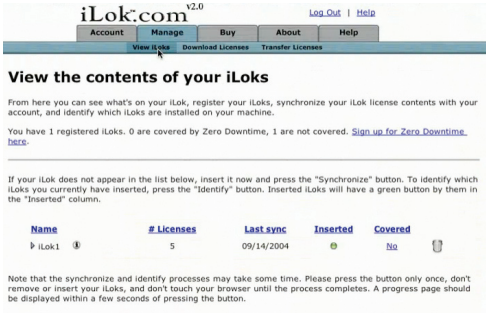
If you have multiple iLoks connected to your computer, it is important to select the correct iLok you wish the authorizations to be transferred to. Then click "Download Licenses" to begin the process. Again, this may take a moment depending on your internet connection.


Step 2 - Select an iLok to receive the licenses:
Select which iLok should receive the licenses, then press the "Download Licenses" button.
Note that the download process may take some time. Please press the button only once, don't remove or insert your iLoks, and don't touch your browser until the process completes. A progress page should be displayed within a few seconds of pressing the button.
✓ Select an iLok
iLok1 (0x00011053)
ownload Licenses
here.

When the transfer finishes you will be asked to confirm the completition of the transaction, thereby letting you know that the transfer was successful.



If you wish to go back into your account and visually confirm the transaction for yourself, select “View iLoks” Then select the iLok you had the authorizations transferred to.


iLok.com v2.0
Log Out | Help
Account
Manage
Buy
About
Help
View iLoks
Download Licenses
Transfer Licenses
View the contents of your iLoks
From here you can see what's on your iLok, register your iLoks, synchronize your iLok license contents with your account, and identify which iLoks are installed on your machine.
You have 1 registered iLoks. 0 are covered by Zero Downtime, 1 are not covered. Sign up for Zero Downtime here.
If your iLok does not appear in the list below, insert it now and press the "Synchronize" button. To identify which iLoks you currently have inserted, press the "Identify" button. Inserted iLoks will have a green button by them in the "Inserted" column.
Name
Licenses
Last sync
Inserted
Covered
iLok1
5
09/14/2004
No
Note that the synchronize and identify processes may take some time. Please press the button only once, don't remove or insert your iLoks, and don't touch your browser until the process completes. A progress page should be displayed within a few seconds of pressing the button.

That’s it! Dont forget to logout and move the iLok Smart Key to your ProTools System if you are using another computer for Internet access. Also, you may need to install a different version of the Plug-In if you are upgrading or replacing.

Transferring Authorizations with iLok.com

You may freely transfer any authorization within your iLok.com account between any of your registered iLok Smart Keys. If you wish to transfer an authorization out of your iLok.com account to a different user, it will require additional support from PACE Anti-Piracy, Inc and may be subject to a service fee or limited by manufacturer restrictions. Check the www.ilok.com website for updates and developments regarding iLok USB Smart Keys and the Pace Interlok Copy Protection system.

Registering your McDSP Plug-In

To register your McDSP Plug-In, fill out and return the product registration card enclosed with the boxed Plug-In package by mail or fax 707-220-0994. Registering your product entitles you to future upgrades and advance information from McDSP. Each individual product must be registered (even if you have multiple copies), and the product must be registered to an individual, not an entity. If you represent a company it is your company's responsibility to notify McDSP in writing if the individual who registered the Plug-In is no longer with the company. The Company must also be able to supply matching registration information to successfully transfer ownership of the Plug-In.

Using your McDSP Plug-Ins

Starting a McDSP Plug-In:

Follow the installation, authorization, and registration instructions above, Launch Pro Tools™, and the McDSP Plug-In and its presets are ready for use. Refer to the Digidesign™ Pro Tools™ Reference Guide for details on general Plug-In operation such as automation.

Exiting a McDSP Plug-In

A McDSP Plug-In is exited by clicking on the desktop or other window in the DAE application running the Plug-In, closing the Plug-In window, or de-instantiating the Plug-In. Pro Tools™ sessions will save instantiated Plug-In configurations and their settings. Refer to the Digidesign™ Pro Tools™ Reference Guide for details on general Plug-In operation.

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4030 Retro Compressor

The 4030 Retro Compressor plug-in, along with the rest of the McDSP Retro Pack plug-in product line, is an entirely new design based on more than a deacde of McDSP engineering experience. The Retro Pack plug-ins are highly stylized products (both visually and sonically), and through an elogant user interface, deliver a vintage gear experience.

The 4030 Retro Compressor is a new dynamic range control topology coupled with a wet/dry mix control to balance compressed and uncompressed signals. An active attack and release design allows aggressive compression settings with minimal artifact generation.

All Retro plug-ins use a McDSP designed output stage topology to eliminate digital clipping at any output level and produce a smoother distortion characteristic. This feature is in addition to the analog saturation modeling that has made McDSP famous over the last decade.

Features:

- Unique original algorithms
- Mix control to balance compressed and uncompressed signals
- Side chain support
- Anti-Clip Output Stage Topology
- Analog Saturation modeling
- Double precision processing
- Ultra low latency
- Mono and stereo versions

The Quick Start Tour: The 4030 Retro Compressor Plug-In

Start Pro Tools™ and Instantiate the 4030 Retro Compressor plug-In

- Launch Pro Tools™ and Open a Pro Tools™ Session.
- Verify the Display-> Mix Window Shows->Inserts View option is checked.
- In one of the inserts of a stereo master fader, select the 4030 Retro Compressor plug-in. Note the 4030 Retro Compressor plug-in will operate on master or regular audio tracks in mono or stereo versions.
- If the insert selection does not show the 4030 Retro Compressor plug-In, verify that the 4030 Retro Compressor plug-in has been installed correctly.
- For more information on starting Pro Tools™ and working with Plug-Ins, see Digidesign's™ Pro Tools™ Reference Guide

Retro Pack Overview

The McDSP Retro Pack plug-ins are designed for the ultimate vintage vibe, using new and original algorithms based on McDSP's decade of industry experience. Retro plug-ins are a line of 'classics' that can live up to their own name without emulating something else.

The 4030 Retro Compressor is an adaptive compressor with the ability to mix comprressed and uncompressed signals.

4030-C
-24
-48
0
THRESHOLD
+24
0
+48
GAIN
4
10
2
20
RATIO
50
0
100
MIX
2
0.2
20
ATTACK
400
1000
200
2000
RELEASE
SC
LISTEN
GR
IN
OUT
mDSP

Controls

Compressor

The 4030 Retro Compressor uses a signal dependent system to adjust various compression parameters to reduce artifact generation (a problem in analog and digital compressors!), and color the overall sound in a vintage style.

- **Threshold** - the signal level at which the compression action starts
- **Ratio** - the amount of signal level compression, as a ratio of input to output
- **Attack** - the rate at which compression action starts
- **Release** - the rate at which compression action stops
- **Gain** - the amount signal level is increased after the compression action
- **Mix** - the balance between compressed and uncompressed signals
- **Key** - select side chain input instead of the input signal as the compression key
- **Listen** - audition the signal being used to trigger the compressor

Displays

Meters

The 4030 Retro Compressor Noise Filter has meters showing input signal output signal levels.

General Information

To adjust any of the 4030 Retro Compressor controls the user can:

- Hold the <Command> key while dragging the slider for fine control, or
- Click on the text box to highlight and edit the numeric value to get precise control (if a value outside the valid range is input, the control will default to the nearest allowed value when enter is hit) and hit <Enter>, or
- Click on the text box to highlight the numeric value and then use the arrow keys to increase or decrease the numeric value, or
- Use the <Option> key to bring all the controls to their default values, or
- Use hardware controller surfaces supported by the 4030 Retro Compressor plug-in including the Mackie HUI and Digidesign's ICON™, ProControl™ and Control 24.

Control Linking

There is no control linking capability in the 4030 Retro Compressor at this time.

Automation

All 4030 Retro Compressor Noise Filter controls are completely automatable. See the Digidesign™ Pro Tools™ Reference Guide, Automating Plug-Ins section.

Presets: Using the Presets and Making Your Own

The 4030 Retro Compressor Noise Filter preset library demonstrates the wide range of applications the 4030 Retro Compressor can be used. No preset will suit every application, and they have been provided as a guide for the user, and will hopefully inspire new ideas and ways to use this sophisticated plug-in.

The presets can be accessed from the Pro Tools™ "Plug-In Librarian" and "Plug-In Settings" pop-up menus.

To make and save your own presets, see the "Plug-In Librarian Functions" section of Digidesign's DigiRack Plug-Ins Guide.

A Word on Preset Compatibility

Presets for the 4030 Retro Compressor configurations are interchangeable.

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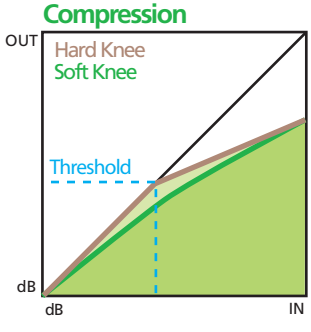
Using the 4030 Retro Compressor Plug-In

The 4030 Retro Compressor is a highly stylized compression algorithm. The following sections cover basic operations of the 4030 Retro Compressor, provide a more in depth descript of some of the features of the 4030 Retro Compressor, and outline some applciations of the 4030 Retro Compressor plug-in.

Basics

There are three types of EQs included in the 4030 Retro Compressor (high shelf, parametric, and low shelf), and two types of filters (high pass and low pass).

Compression



A compressor affects the signal once the signal level is above the selected threshold. A compressor is used to reduce the output level of signals once they rise above the threshold. A ratio control determines the amount of gain reduction, as a ratio of the input to output (in dB). The higher the ratio, the more gain reduction is applied to the signal as it continues to rise above the selected threshold. Gentle compression ratios are considered to be in the 2:1 to 4:1 range, while stronger ratios are 8:1 and higher. Attack and release times determine how fast the compressor begins to reduce signal levels (attack) and how fast the compressor recovers to a state where it is no longer affecting the input signal (release).

The 4030 Retro Compressor has additional features including signal dependent adjustment of attack and release times, a mix control to balance compressed and uncompressed sounds, and a Anti-clip output stage topology to prevent digital clipping.

A Closer Look at the 4030 Retro Compressor Plug-In

Mix This!

The most noticable feature in the 4030 Retro Compressor is the ability to balance compressed and uncompressed signals with the Mix control. The utility of this control should not be overlooked.

Typically a compressed track can loose some of its natural sound by the very nature that its dynamic range has been altered. The practice of balancing the compressed track with a copy of the original is not new, however previously required bussing tracks around and riding some faders. In the 4030 Retro Compressor, the Mix control facilitates this technique quickly and easily.

Clip That!

The 4030 Retro Compressor, like all Retro Pack plug-ins, has a new Anti-Clip output stage that eliminates digital clipping. Extreme caution is warranted when increasing make up gain of a digital compressor to prevent digital clipping, but with the 4030 Retro Compressor, the digital clip is replaced with a subjectively derived saturation.

Signal Dependent Adjustment

Any compressor, be it analog or digital, creates some amount of signal distortion as it applies gain reduction, typically in the form of 'buzzing', or 'gain cogging'.

While the style of the 4030 Retro Compressor is clearly vintage, it has some advanced under-the-hood features to minimize 'gain cogging'. As input signal is processed, signal characteristics are analyzed in realtime to adjust compression parameters to minimize unwanted gain cogging artifacts. Furthermore, this feature makes the 4030 Retro Compressor capable of reacting to a wider variety of material with good objective and subjective results.

Applications

Vocals

The signal dependent 'smarts' in the 4030 Retro Compressor make it an ideal choice for vocals. The Ratio control is continuous, so that 'just right' compression ratio is right at your fingertips.

Several vocal oriented presets are included with the 4030 Retro Compressor.

Drums

The Mix control of the 4030 Retro Compressor really shines when used on a drum buss. Balancing the compressed drum kit against its original version is a great way to allow transients to pop through the mid, while the body of the drum kit (the compressed version) remains audible as well. Room ambience is generally picked up better in the compressed version as well, so the Mix control does a good job of balancing 'room tone' with 'instrument tone'.

Several drum oriented presets are included with the 4030 Retro Compressor.

Bass

A strong level of low frequency signal coupled with a variety of transient events (slap bass anyone?) make bass guitar a difficullt instrument to control dynamically. The 4030 Retro Compressor signal dependent 'smarts' get better (smoother, less gain cogging, etc.) results on bass guitar, synth bass, and similar instruments.

Several bass instrument oriented presets are included with the 4030 Retro Compressor.

Keys, Etc.

Instruments with a wide dynamic and frequency range (piano anyone?) are another example of difficult dynamic range control. The 4030 Retro Compressor is very capable of delivering a good sound using its internal signal dependent 'smarts'. While the overall interface of the 4030 Retro Compressor is relatively simple, its utility across a diverse range of input signal should not be under estimated.

Several guitar, keyboard, synthesizer, and other presets are included with the 4030 Retro Compressor.

4030 Retro Compressor Plug-In Reference Guide

4030 Retro Compressor Specifications

Parameter	Range	Function
COMPRESSOR		
THRESHOLD	-48 to 0 dB	Signal level at which compression action startst
RATIO	2:1 to 20:1	Amount of compression as a ratio of input to output signal level in dB
ATTACK	0.2 to 20 msec	Rate at which compression action starts
RELEASE	200 to 2000 msec	Rate at which compression action stops
GAIN	0 to +48 dB	The amount signal level is increased after the compression action
MIX	0 to 100 %	The balance between compressed and uncompressed signals

DSP Delay

The delay incurred by any of the 4030 Retro Compressor plug-in configurations is 3 (THREE) samples on HD systems. This is the absolute minimum number of delay samples a TDM plug-in can have. The McDSP plug-ins are designed in this manner to provide the user with the closest analog mixing console experience possible (analog inserts such as EQ and compression do not cause a processing delay when inserted into a track).

DSP Usage

HD and HD Accel DSP hardware

The TDM versions of the 4030 Retro Compressor Noise Filter plug-in configurations use a varying amount of DSP resources for each 4030 Retro Compressor Noise Filter configuration. The table below is a listing of these DSP usages. DSP usage is shown in the Pro Tools™ System Usage window.

Maximum Instantiation Counts at 48kHz

Configuration	4030 Retro Compressor Mono	4030 Retro Compressor Stereo
# INSTANTIATIONS PER DSP ON HD SYSTEMS	11	7
# INSTANTIATIONS PER DSP ON HD ACCEL SYSTEMS	22	14

All of the 4030 Retro Compressor Noise Filter plug-in configurations can operate on the same DSP, depending on the configuration's DSP requirements. See below for the percentages of a HD or HD Accel DSP used by a single instantiation of a 4030 Retro Compressor Noise Filter plug-in.

Percentage of DSP used by one instantiation at 48kHz

Configuration	4030 Retro Compressor Mono	4030 Retro Compressor Stereo
% OF DSP USED ON HD SYSTEMS	9%	13%
% OF DSP USED ON HD ACCEL SYSTEMS	4.5%	6.5%

Using the data provided in the above chart, the 4030 Retro Compressor (stereo) and 4030 Retro Compressor (stereo) plug-in configurations can share the same DSP.

The 4030 Retro Compressor Noise Filter supports some higher sample rates (88.2 kHz and 96 kHz). For 88.2 kHz and 96 kHz operation the dsp usage is roughly doubled (2x).

www.mcdsp.com

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